

Notice of Allowability

Application No.

10/019,295

Examiner

Jaworski Francis J.

Applicant(s)

YOUNG ET AL.

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to Amdt 1/10/05.
2. ☒ The allowed claim(s) is/are 24 and 26-38.
3. ☒ The drawings filed on 01042002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

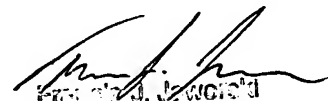
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Francis J. Jaworski
Primary Examiner

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows: The non-compliant amendment filed January 10, 2005 has been entered as follows:

Claims 1 – 23 have been cancelled.

- — 24. (Currently Amended) ~~[[An]]~~ A non-invasive apparatus for treatment of subcutaneous tissue of a patient, said non-invasive apparatus comprising:
- means for generating ultrasonic vibrations;
 - a substantially plano-concave lens disposed immediately adjacent the means for generating ultrasonic vibrations to focus the ultrasonic vibrations at a focal point within the tissue;
 - a chamber configured to be positioned on the patient and to at least partially enclose the means for generating ultrasonic vibrations and the substantially plano-concave lens and being uniformly pressurized therein during treatment, wherein the means for generating ultrasonic vibrations includes a plurality of generator means for generating ultrasonic vibrations, wherein each of the plurality of generator means is substantially equally spaced from an adjacent one along a substantially semi-circular plane, and wherein a focal plane of at least one generator means is transverse to a portion of the chamber; and
 - means for moving the focal point.

25. (Canceled)

26. (Previously Presented) An apparatus as claimed in claim 24, wherein each of said plurality of generator means is provided with a respective substantially plano-concave lens disposed immediately thereadjacent to substantially focus the ultrasonic vibrations at said focal point within the tissue.

27. (Previously Presented) An apparatus as claimed in claim 24, wherein each of said plurality of generator means is so mounted in fixed relationship to each other generator means that ultrasonic vibrations generated by each generator means are focused at a focal point substantially coincident with the respective focal point of each other generator means.

28. (Previously Presented) An apparatus as claimed in claim 24, wherein the chamber is a liquid-filled chamber through which ultrasonic vibrations from each generator means may be transmitted to a surface of a body above said subcutaneous tissue to be treated.

29. (Previously Presented) An apparatus as claimed in claim 26, wherein each said respective substantially plano-concave lens is disposed directly adjacent a liquid-filled chamber, adapted to transmit focused ultrasonic vibrations therethrough from each said substantially plano-concave lens to a surface of a body above said subcutaneous tissue to be treated.

30. (Previously Presented) An apparatus as claimed in claim 24, wherein said substantially plano-concave lens comprises a material selected from the group consisting of titanium, an alloy of titanium, aluminum and an alloy of aluminum.

31. (Currently Amended) "[An]] A non-invasive apparatus for treatment of subcutaneous tissue of a patient, said non-invasive apparatus comprising:

at least ~~one~~ two ultrasonic generators configured to generate ultrasonic vibrations;

at least one substantially plano-concave lens disposed immediately adjacent the at least ~~one~~ two ultrasonic generators to focus the ultrasonic vibrations at a focal point within the tissue;

a chamber configured to be positioned on the patient and to at least partially enclose the at least ~~one~~ two ultrasonic generators and the at least one substantially plano-concave lens and being uniformly pressurized therein during treatment, wherein each of the at least ~~one~~ two ultrasonic generators is substantially equally spaced from an adjacent one along a substantially semi-circular plane, and wherein a focal plane of the at least ~~one~~ two ultrasonic generators is transverse to a portion of the chamber; and

a mounting mechanism configured to mount the at least one substantially plano-concave lens and the at least ~~one~~ two ultrasonic generators to be moveable together to move the focal point.

32. (Currently Amended) An apparatus as claimed in claim 31, wherein the at least ~~one~~ two ultrasonic generators ~~includes~~ include a plurality of ultrasonic generators and the at least one substantially plano-concave lens includes a plurality of substantially

plano-concave lenses, each of said plurality of substantially plano-concave lenses being disposed immediately adjacent a respective one of the plurality of ultrasonic generators to substantially focus the ultrasonic vibration at said focal point within the tissue.

33. (Previously Presented) An apparatus as claimed in claim 32, wherein each of said plurality of ultrasonic generators is mounted in fixed relationship to each of the other ultrasonic generators such that its respective substantially plano-concave lens focuses its ultrasonic vibrations at a focal point substantially coincident with said focal point of the respective substantially plano-concave lens of each other ultrasonic generator.

34. (Previously Presented) An apparatus as claimed in claim 32, the apparatus further comprising a liquid-filled chamber, each of said plurality of substantially plano-concave lenses being disposed directly adjacent said liquid-filled chamber such that ultrasonic vibrations may be passed from each of said substantially plano-concave lenses through said liquid-filled chamber to a surface of a body above the subcutaneous tissue to be treated.

35. (Previously Presented) An apparatus as claimed in claim 31, wherein the at least one substantially plano-concave lens comprises a material selected from the group consisting of: titanium, an alloy of titanium, aluminum and an alloy of aluminum.

36. (Currently Amended) A method for treatment of subcutaneous tissue comprising the steps of:

providing an apparatus including at least ~~one~~ two ultrasonic generators configured to generate ultrasonic vibrations; at least one substantially plano-concave lens disposed immediately adjacent the at least ~~one~~ two ultrasonic generators to focus the ultrasonic vibrations at a focal point within the tissue; a chamber configured to at least partially enclose the at least ~~one~~ two ultrasonic generators and the at least one substantially plano-concave lens and being uniformly pressurized therein during treatment, wherein each of the at least ~~one~~ two ultrasonic generators ~~[[is]]~~ are substantially equally spaced from an adjacent one along a substantially semi-circular plane, and wherein a focal plane of the at least ~~one~~ two ultrasonic generators is transverse to a portion of the chamber; and a mounting mechanism configured to mount the at least one substantially plano-concave lens and the at least ~~one~~ two ultrasonic generators to be moveable together to move the focal point;

applying said apparatus to a body in which lies the tissue to be treated; and


moving the at least ~~one~~ two ultrasonic generators and the mounting mechanism so that their effective distance from a body surface above the tissue to be treated is such that the focal point of the lens is coincident with the tissue to be treated.

37. (Previously Presented) A method as claimed in claim 36, wherein the tissue to be treated comprises blood vessels.

38. (Previously Presented) An apparatus as claimed in claim 24, wherein the means for generating ultrasonic vibrations includes at least one piezoelectric member. — —

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaworski Francis J. whose telephone number is 571-272-4738. The examiner can normally be reached on 8:30 - 5:00 Mon - Fri..

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Francis J. Jaworski
Primary Examiner

FJJ:fjj
01-24-2005